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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,976	01/11/2002	Neil Doherty	600.1211	8459

23280 7590 09/03/2003

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EXAMINER

CRENSHAW, MARVIN P

ART UNIT	PAPER NUMBER
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2854

DATE MAILED: 09/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/043,976

Applicant(s)

DOHERTY ET AL.

Examiner

Marvin P. Crenshaw

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on the amendment filed 6/06/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 16 and 18 - 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 16 and 18 - 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 – 7, 10 - 16 and 18 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wirz in view of Helms et al.

Wirz teaches a roll for a web printing press (Fig. 6) comprising a cylindrical drum (Fig. 6) and a porous layer (11) disposed at a circumference of the drum and configured to provide a pathway for air (Fig. 11) from a first location (air coming in through the end of the roll) between the roll and a web (14) passing over the chill roll and a second location (3) having a lower air pressure. However, Wirz doesn't teach the drum defining a coolant inlet and a coolant outlet for circulating a coolant through an interior space in the drum, the interior space being separate from the pathway for the air.

Helms et al. teach a drum (Fig. 7) defining a coolant inlet (84) and a coolant outlet (86) for circulating a coolant through an interior space in the drum, the interior space being separate from the pathway for the air.

It would have been obvious to modify Wirz to have a drum defining a coolant inlet and a coolant outlet for circulating a coolant through an interior space in the drum, the interior space being separate from the pathway for the air as taught by Helms et al. to provide an

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efficient way of cooling the roller while transporting a paper medium during printing for keeping the ink from smearing.

With respect to claim 2, Wirz teaches a porous layer is attached (See col. 7, lines 10-15) to a circumferential surface of the drum.

With respect to claim 3, Wirz teaches a porous layer is integral (Fig. 11) with a circumferential surface of the drum.

With respect to claim 4, Wirz teaches a porous layer forms a circumferential surface of the drum (Fig. 6).

With respect to claim 5, Wirz teaches a pathway is configured to enable the air to move in a radial (Fig. 11) direction.

With respect to claim 6, Wirz teaches a pathway (3) is further configured to enable the air to move in at least one of a lateral and circumferential direction.

With respect to claim 7, Wirz teaches a porous layer includes a matrix material.

With respect to claim 10, Wirz teaches a porous layer (Fig. 11) defines at least one of a hole (32), a slot (30) and a tube (3) so as to provide the pathway.

With respect to claim 11, Wirz teaches a porous layer includes a material having a high thermal conductivity (See col. 4, lines 5-40).

With respect to claim 12, Wirz teaches a porous layer includes at least one of steel, aluminum and copper (See Col. 3, lines 5-16).

With respect to claim 13, Wirz teaches a porous layer has a thickness of from about 1 mm to about 2.5 mm (See Col. 6, lines 34 – 39).

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With respect to claim 14, Wirz teaches a second location (Fig. 11) is at a lateral edge of the drum.

With respect to claim 15, Wirz teaches an air is entrained at the first location (Fig. 11).

With respect to claim 16, Wirz teaches a pathway (3) is configured to enable the air to move from the first location so as to improve a heat transfer between the web and chill roll.

With respect to claim 18, Wirz teaches a printing press comprising a cylindrical roll (Fig. 11) including a porous layer (11) disposed at a circumference of the roll and configured to provide a pathway for air from a first location between the chill roll and a web passing over the chill roll and a second location having a lower air pressure. However, Wirz doesn't teach the chill roll having a circuit for circulating coolant and the circuit being separate from the pathway of air. Helms et al. teaches a chill roll (Fig. 7) having a circuit (84 and 86) for circulating coolant and the circuit being separate from the pathway of air. It would have been obvious to modify Wirz to have a chill roll for circulating coolant and the circuit being separate from the pathway of air as taught by Helms et al. to provide an efficient way of cooling the roller while transporting a paper medium during printing for keeping the ink from smearing.

With respect to claim 19, Wirz teaches a pathway (3) is configured to enable the air to move from the first location so as to improve a heat transfer between the web and the roll.

With respect to claim 20, Wirz teaches a pathway (3) is configured to enable the air move in a radial direction (Fig. 11) and in at least one of a lateral and a circumferential direction.

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wirz in view of Helms et al and further in view of McCartney et al.

Wirz and Helms et al. together teach all that is claimed, as discussed in claims 1-7, 10 – 16 and 18-20 above, except the porous layer is a fibrous and or foam material.

McCartney et al. teaches the use of a porous layer including a fibrous and foamed material (See col. 6, lines 4-17). It would have been obvious to further modify the roll of Wirz to have a porous layer being fibrous and made of a foam material as taught by McCartney et al. so as to reduce the mechanical shocks when transporting the medium.

Response to Arguments

Applicant's arguments with respect to claims 1 – 16 and 18 - 20 have been considered but are moot in view of the new ground(s) of rejection. Specifically, Wirz teaches the claimed invention of having a cylindrical drum having a cover layer being a porous layer for permitting air there through.

With the addition of Helms et al., teaches a drum defining a coolant circulation means having a coolant inlet and outlet.

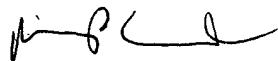
Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marvin P. Crenshaw whose telephone number is (703) 308-0797. The examiner can normally be reached on Monday - Friday 7:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (703) 305-6619. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



MPC
August 21, 2003



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